405.4 Geological Survey

IT Plan Version: B 1

Goals and Objectives

Goal: 1 Maintain computer and telephone infrastructure

Objectives		Timeframe	Accomplishments/Status
1	Replace our obsolete large format monochrome scanner with a color scanner.	01-03	in planning
2	Set up server to share specialized geologic and GIS software across our LAN.	99-01	in progress
3	Upgrade specialized geologic software to network version.	99-01	completed
4	Replace all PCs every three years and upgrade software as new releases are made	Ongoing	
5	Maintain telephone system.	Ongoing	

Goal: 2 Train Staff.

Objectives		Timeframe	Accomplishments/Status
1	Have consulting company teach an ArcView GIS course to entire staff with an additional one-day course focused on Earth Science applications.	01-03	in planning
2	Send IT staff to troubleshooting/maintenance classes.	Ongoing	We have sent our shared IT person (Oil & Gas Division and Geological Survey) to one class and plan for additional class(es) in the current biennium and in the 01-03 biennium.
3	Send staff to office automation classes.	Ongoing	Staff members have attended several different classes this biennium and more are in the future. Our IT staff member may teach some in-house classes.
4	Send geologists to training class(es) on specialized geologic software.	99-01	Staff has already attended a training class on the Petra program, our specialized geologic program.
5	Provide database training for database manager.	01-03	in planning

Goal: 3 Expand our Digital Field Mapping program.

Objectives		Timeframe	Accomplishments/Status
1	Evaluation of existing digital mapping programs is underway. These programs will be adapted to NDGS needs.	99-01	in progress
2	After investigating the available options, acquire the appropriate hand-held computer(s), software, and any necessary GPS hardware and software. Continue computer/database programming as needed to implement the digital mapping program.	01-03	in process
3	Train staff to use GPS hardware and software and handheld computer programs in the field.	99-01	in planning

Goal: 4 Ensure NDGS has sufficient IT staff to support agency mission.

Objectives		Timeframe	Accomplishments/Status
1	Hire an additional .5 FTE IT staff to meet our current and expected IT staffing needs. We hired our first IT staff member this biennium but he is shared 50% with the Oil & Gas Division.	01-03	in planning

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Goal: 5 Implement agency database for GIS and normal agency data needs.

Objectives		Timeframe	Accomplishments/Status
1	Evaluate available databases and purcase the database that meets agency requirements.	99-01	in process
2	Begin initial database design and begin to input data.	99-01	in planning
3	Set up a database server.	99-01	in process

Goal: 6 Acquire specialized geologic software for staff.

Objectives		Timeframe	Accomplishments/Status
1	Evaluate and acquire specialized oil well core description software and appropriate computer.	01-03	in planning
2	Evaluate usage and purchase additional copies of our specialized geologic software (Petra) as necessary.	Ongoing	in process

Activity		Priority	Activity Type	Start Date	End Date	99-01	01-03	03-05
1	**Local Area Network**	1	Maintenance/Base	Ongoing				

The Geological Survey has three offices, two in Bismarck and a satellite office in Grand Forks. All three offices are on the state network. The main Bismarck office and our Heritage Center office are through ITD while the Grand Forks office is through UND. Geological Survey computers can be grouped into two functions, GIS and administrative. We have 26 workstations, 1 plotter, and 9 printers in both Bismarck offices and 3 workstations, 1 plotter, and 3 printers in Grand Forks. Each workstation has office automation software. Two of the workstations have our GIS software, Arc/Info, on them. We are setting up one server to share specialized geologic software and ArcView GIS software between staff members and to act as a backup email server if necessary.

	99-01	01-03	03-05
IT PLAN ESTIMATED COST	$226,620	**$299,365**	$315,000
BASE BUDGET REQUEST		**$234,500**	
OPTIONAL BUDGET REQUEST		**$62,185**	
BUDGET NONAPPROPRIATED		**$2,680**	

Activity		Priority	Activity Type	Start Date	End Date	99-01	01-03	03-05
2	**Staff Training**	2	Maintenance/Base	Ongoing				

The Geological Survey will continue to send staff members to IT training schools. We plan to increase our trainng budget next biennium because either we will have new IT staff or we will need to send other, non-IT personnel to training classes. Training will range from basic computer concepts through specialized training in database and/or GIS applications. We expect several course to be held out-of-state.

	99-01	01-03	03-05
IT PLAN ESTIMATED COST	$2,000	**$11,000**	$12,000
BASE BUDGET REQUEST		**$2,500**	
OPTIONAL BUDGET REQUEST		**$8,500**	
BUDGET NONAPPROPRIATED		**$0**	

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Activity	Priority	Activity Type	Start Date	End Date		99-01	01-03	03-05
3 **Digital Mapping**	3	Maintenance/Base	Ongoing					

Fully implement a digital field-mapping program for surface mapping projects. Digital field-mapping integrates GPS data with field geology by collecting both GPS location and the geologic descriptions, entering both directly into a computer. The field computer data is uploaded and integrated into a larger database back in the main office where it can be used with a GIS and other computer software. The major activity will be designing/programming forms for use with hand-held computers in the field.

			99-01	01-03	03-05
IT PLAN ESTIMATED COST			$3,500	**$15,500**	$16,000
BASE BUDGET REQUEST				**$7,500**	
OPTIONAL BUDGET REQUEST				**$8,000**	
BUDGET NONAPPROPRIATED				**$0**	

Activity	Priority	Activity Type	Start Date	End Date		99-01	01-03	03-05
4 **Hire IT Staff**	4	New Initiative	07/2001	07/2003				

Hire an additional .5 FTE IT personnel to increase our IT staff to 1 FTE. At present, non-IT staff members are required to conduct many agency IT functions and we plan several new programs that will increase our need for IT personnel. We need a FTE IT staff members to fill our current and projected IT staffing needs.

			99-01	01-03	03-05
IT PLAN ESTIMATED COST			$1,100	**$33,559**	$0
BASE BUDGET REQUEST				**$0**	
OPTIONAL BUDGET REQUEST				**$33,559**	
BUDGET NONAPPROPRIATED				**$0**	

Justification:
To fill most of our IT needs minimizing the IT duties conducted by other, non-IT staff members. Having non-IT staff performing IT duties reduces our productivity in our core functions, costs more, and is less efficient. Our present IT staff is one .5 FTE Data Processing Coordinator. This level of staffing is inadequate for our current needs and future programs will be jeopardized without more IT staff.

Impact on other activities:
Productivity of core functions will increase. Ongoing costs will be reflected in Activity One.

Activity	Priority	Activity Type	Start Date	End Date		99-01	01-03	03-05
5 **Telephone**	5	Maintenance/Base	Ongoing					

Maintain telephone services. Services includes four cellular telephones which are contracted from outside ITD.

			99-01	01-03	03-05
IT PLAN ESTIMATED COST			$26,350	**$28,130**	$32,000
BASE BUDGET REQUEST				**$26,090**	
OPTIONAL BUDGET REQUEST				**$1,440**	
BUDGET NONAPPROPRIATED				**$600**	

Total Agency			99-01	01-03	03-05
IT PLAN ESTIMATED COST			$259,570	**$387,554**	$375,000
BASE BUDGET REQUEST				**$270,590**	
OPTIONAL BUDGET REQUEST				**$113,684**	
BUDGET NONAPPROPRIATED				**$3,280**	